

REMARKS

Reconsideration of the present application, as amended is respectfully request.

Claims 1-19 are currently pending, and have been rejected by the Examiner. In the accompanying amendment, claims 1, 6, 12, 13, and 19 have been amended, where as claims 11 and 18 have been canceled. The amendments to the claims are supported by the specification, claims, and drawings as originally filed. On account of the foregoing listed support for the amendments, it is respectfully submitted that the amendments do not add new matter.

Claim Rejections Under 35 U.S.C. § 112

The Examiner has rejected claim 19 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In response, the Applicant have amended claim 19. It is respectfully submitted, that by virtue of the amendments to claim 19, claim 19 now complies with the requirements of 35 U.S.C. § 112. Accordingly, the Examiner is respectfully requested to withdraw the rejection of claim 19 under 35 U.S.C. § 112.

Claim Rejections Under 35 U.S.C. § 102

The Examiner has rejected claims 1-18 under 35 U.S.C. § 102 (b) as being anticipated by Miyata (U.S. Patent No. 5,622,814).

In this regard, the Examiner has stated:

Miyata discloses a method for fabricating an active substrate. On a transparent substrate 6, a gate electrode 7, an insulated conductor layer 7a, a gate insulator 9, a first semiconductor layer 10, a passivation layer 121, and a second semiconductor layer 12 are formed. Layers 7, 7a, 9, 10, 11 and 12 correspond to the applicant's stack of layers on a substrate. A negative photoresist layer 23 (applicant's middle layer) is coated over the entire surface. Ultraviolet rays 21 are irradiated from the backside of the substrate using gate electrode 7 and insulated conductor layer 7a (applicant's one or stack of layers patterned with longitudinally spaced grooves or at least one aperture) as a mask. The resist is developed, removing the portions corresponding to the gate electrode 7 and insulated conductor 7a. A conductor layer 24 is then deposited over the resist (applicant's top or structural layer). Portions of the conductor layer 24 overlying the resist are then removed with the resist, leaving a conductor pattern 24 (transverse strips, see fig. 4A). The patterned conductor layer 24 is then used as an etching mask to remove portions of the first and second semiconductor layers 11 and 12 (applicant's uppermost sacrificial layers). A Transparent conductive layer is deposited and patterned to form a drain electrode 12, a source electrode 14 and a pixel electrode 15 (Col. 6, lines 41-64, Figs. 6A-6G). An example for the material for the transparent substrate is glass, such as Corning Glass 7059 (Col. 4, 51-6). Materials for the source, drain and pixel electrodes include various conductive materials such as Al, Mo, Ni, other metals or their silicides (Col. 11, lines 26-49).

(pgs. 2-3, Office Action 06/18/03).

Claim 1 as amended includes the following limitations:

1. A microfabrication process for fabricating a microelectromechanical systems device, comprising:
  - depositing one or a stack of layers on a substrate;
  - patterning said one or a stack of layers to form a plurality of longitudinally extending grooves therein;
  - depositing a middle layer on said one or a stack of layers;

patterning the middle layer using said one or a stack of layers as a photomask, wherein said middle layer is exposed to light passed through the groves in the one or a stack of layers; and

developing said middle layer to form longitudinally spaced ridges in the said middle layer disposed in the groves in said one or a stack of layers, said ridges forming a support structure which is part of the microelectromechanical systems device.

(Claim 1, Emphasis Added)

According to the teachings of Miyata, the negative photoresist layer 23 is ultimately removed. This is in contrast with the negative photoresist of the middle layer as recited in claim 1 which is developed to form longitudinally spaced ridges that form a support structure, which is part of the microelectromechanical systems device. Accordingly, it is respectfully submitted that Miyata does not teach or suggest all limitations of claim 1, and that claim 1 is thus not anticipated or rendered obvious by Miyata.

Given that claims 2, 5, 6-10, and 12 depend on claim 1, it is respectfully submitted that these claims also not anticipated or rendered obvious by Miyata.

The Examiner also rejected claims 1-8, 10, 13, 14, 16-19 under 35 U.S.C. § 102(b) as being anticipated by Shih (US 5,976,902). In this regard, the Examiner has stated that:

Shih discloses a self-aligned patterning process. ITO layer 202 and first metal layer 204 (one layer) are formed on glass substrate 200 and patterned, followed by deposition of a stacked layer consisting of a first silicon nitride layer 206, amorphous 208 and a second silicon nitride layer 210 (step a, b). Photoresist 212 (middle layer) is then formed and back-side exposed using gate electrodes 204 as a mask (step c, d). The photoresist is developed and used as a mask to etch layer 210 (sacrificial layer), followed by deposition of doped amorphous silicon layer 216 (top or structural layer)

(repeated steps a, b). Negative photoresist 218 is deposited and back-side exposed using 204, 210 as a mask (repeated step c, d). Negative photoresist 218 is developed and used as a mask to etch layer 216. (Col 3, I.44-Col.4, I.33 and figures 2-7).

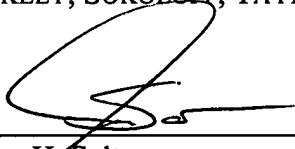
It is respectfully submitted that Shih fails to teach or suggest the limitation (e) of claim 13 as amended. Accordingly, it is respectfully submitted Shih does not anticipate claim 13. Given that claims 14-17, and 19 depend on claim 13, it is respectfully submitted that these claims are also not anticipated by Shih.

Applicant respectfully submits that the present application is in condition for allowance. Please charge any shortages and credit any overages to Deposit Account No. 02-2666. Any necessary extension of time for response not already requested is hereby requested. Please charge any corresponding fee to Deposit Account No. 02-2666.

Respectfully submitted,

BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP

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James H. Salter  
Reg. No. 35,668

12400 Wilshire Boulevard  
Seventh Floor  
Los Angeles, California 90025-1026  
(408) 720-8300